CREDIT PROGRAMS FOR SMALL FARMERS: A PROJECT MANAGER'S REFERENCE

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Siew Tuan Chew
(Center for Development Information and Evaluation, A.I.D.)

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FOREWORD

This report summarizes the literature on A.I.D.'s experience, current policy, and lessons learned concerning key issues in designing and implementing agricultural credit programs. Section 1 outlines A.I.D.'s experience and current policy; Section 2 synthesizes key issues and approaches to resolving them; and Section 3 describes ongoing experiments to generate alternative financial resources--rural savings and private investment--to support agricultural development activities. An annotated bibliography of relevant literature is included.

This report is the first of a forthcoming series of Center for Development Information and Evaluation (CDIE)-sponsored Special Studies--Project Manager's References--which summarize A.I.D.'s experience in specific areas of development assistance and discuss associated issues. The series was initiated in response to requests frequently received by CDIE for summaries of pertinent issues and current thinking concerning a particular topic. The information contained in this summary of A.I.D.'s experience with credit programs should be useful to project managers who are nonspecialists on the subject, but who need background information to guide their work in identifying and managing specialists in the design, implementation, or evaluation of an agricultural credit project. The information contained in the series also should be useful to others interested in A.I.D.'s experience and ongoing efforts in addressing development problems in host countries.

To facilitate access, the reports in the Project Manager's Reference series also will be made available to A.I.D. Missions through the CDIE-sponsored computerized information retrieval system, "MICRODIS."

W. Haven North
Associate Assistant Administrator
Center for Development Information
Agency for International Development

SUMMARY

Between 1950 and 1985, the Agency for International Development (A.I.D.) funding for agricultural development programs with major credit components totaled slightly over US$1 billion. A few programs have been successful in providing farmers with the necessary capital for adopting high-yielding cereal crop varieties. Funds for institution-building and technical assistance helped establish many types of institutions that channel loans to farmers. In most cases, however, the lack of formal credit was not a major constraint to technology adoption. On the whole, most credit programs encountered serious implementation problems and failed to meet their stated objectives (see Section 1).

Issues Concerning Credit Programs for Small Farmers

A.I.D.'s experience provides insights and identifies issues that should be considered in designing future credit programs. These include the following:

1. Feasible conditions for promoting agricultural investments (Section 2.1). For a credit program to successfully stimulate agricultural development, the following conditions must exist or must be met:

-- Market demand and government pricing policies must be favorable to increased production of project-supported crops.

-- The project-supported technology must be profitable and appropriate for the target population.

-- Agricultural support services and marketing facilities must be adequate for the expected increase in crop production.

-- The target population must have the necessary land and labor resources to invest in the recommended technology.

2. Interest rates and policy reform (Section 2.2). A fundamental lesson from A.I.D.'s experience is that if a credit program is to be financially viable and self-sustaining, positive real interest rates should be charged for loans. In the past, many A.I.D.-sponsored credit programs provided loans at subsidized interest rates mandated by the host country govern-

ment. The interest rates were usually significantly below market rates and often below inflation rates as well. Conse- quently, many credit programs were providing loans at negative real interest rates and could not generate sufficient revenue to allow financial institutions to cover all lending costs. Eventually, the combined effect of negative real interest rates and low rates of loan recovery caused many credit programs to decapitalize. Below-market interest rates also discouraged lending to targeted borrowers.

Current A.I.D. policy discourages continued support for subsidized interest rates and supports policy reform to decontrol interest rates. Financial policy reform--to gradually raise interest rates to, or close to, market levels--is incorporated in the design of several credit programs being implemented. However, because subsidized interest rate policies are interrelated with a host of other government policies on macroeconomic issues, the policy reform required might not be adequately resolved at the project level. Sectorwide policy reform should be undertaken. An experimental project being implemented in Bangladesh indicates that the task is not easy and necessitates a long-term commitment by both A.I.D. and the host country.

3. Credit program design and administration (Section 2.3). A.I.D.'s experience identifies other key issues that could be addressed to improve the performance of credit programs. They include the following:

-- Transaction costs. High administrative and borrowing costs can limit the coverage of the credit program. These costs can be reduced by minimizing targeting and reporting requirements; simplifying loan application, supervision, and repayment procedures; using efficient management techniques; and designing group lending programs.

-- Protection against inflation and bad debt. Capital losses could be minimized through protective measures to deal with inflation and bad debt, and policies and management techniques that encourage loan repayment.

-- Loan portfolio design. There is no single "successful" formula for designing appropriate loan portfolios for small farmers. Each portfolio should address a project's specific economic considerations and sociocultural context. However, experience indicates that coverage of intended beneficiaries could be improved through appropriate innovations, for example, collateral requirements that take into account local socioeconomic characteristics and flexible loan disbursement and repayment policies.

-- Alternatives to big banking institutions. Local credit unions, cooperatives, and various forms of private

voluntary organizations offer both advantages and disadvantages. Their service to localized target groups might be better, but coverage tends to be limi- ted and not necessarily at lower administrative costs. A combination of banks and local organizations might improve performance and coverage and reduce transaction costs.

-- Equity considerations. There is no conclusive evidence to determine whether, in general, targeted credit programs are an appropriate means to address equity issues cost-effectively. On the one hand, past experience indicates that the administrative costs and "hidden" costs (e.g., susceptibility to corruption and surcharges on special loans) of targeted credit programs are generally significantly higher than in untargeted programs. Moreover, direct benefits to intended borrowers cannot be empirically demonstrated, especially for nationwide programs. On the other hand, more optimistic observers argue that in the long run, with efficient management techniques and through large volume lending, administrative costs of targeted credit programs could be significantly reduced.

4. Evaluating the impact of credit programs (Section 2.4). Standard data collection approaches are costly and cannot adequately assess the direct benefits of credit programs. Alternative and more cost-effective approaches should be developed. One option is to abandon the idea of empirically demonstrating the impact of credit programs on farm income and agricultural production. Instead, the focus could be on monitoring and evaluating progress in developing efficient and self-sustaining rural financial institutions to serve small farmers and other rural clientele.

Experimental Approaches

1. Rural savings mobilization (Section 3.1). Many economists have argued that a basic weakness in the design of conventional credit programs is that developing country financial institutions are not encouraged to mobilize indigenous savings to support their rural lending operations. The economists argue that financial institutions that can draw on local savings are in a better position to sustain and expand donor-initiated credit programs. Current A.I.D. policy supports this view. A.I.D. is also supporting experiments in Honduras and the Dominican Republic to develop appropriate strategies to assist

local agricultural banks and credit unions to mobilize deposits in conjunction with their lending. Preliminary findings demonstrate that, at least in these two countries, there is a strong demand for rural deposit facilities and that, with appropriate incentives, existing institutions can attract rural savings at low additional administrative costs. However, the financial management of savings and lending portfolios is more complicated

and might require substantial startup investments in technical assistance and training.

2. Equity investment (Section 3.2). The USAID/Honduras Small Farmer Livestock Improvement project will test the feasibility of establishing a private company (Fondo Ganadero) to share investment risks with small livestock farmers. Joint ventures will be established, with the small farmers providing land and the Fondo Ganadero providing technical services and animals. Animals and loans for infrastructure construction will be provided through a credit program managed by the Fondo. The Fondo will generate income through the sale of milk, beef, breeding stock and veterinary products, and fees for the technical services it provides to participating farmers. Farmers will share the profits from the joint investment with the Fondo.

1. OVERVIEW OF A.I.D. EXPERIENCE AND CURRENT POLICY

This section provides an overview of the Agency for International Development's (A.I.D.) past experience in supporting credit programs using what is generally known as the "conventional approach." Most of these programs were implemented in the 1960s and 1970s. Subsequent discussion outlines A.I.D.'s current policy to encourage developing countries to mobilize private resources to help finance agricultural investment and the experimental approaches being implemented to address key issues.

1.1 The Conventional Approach: Credit Programs To Promote Technical Packages

Over the past three decades, agricultural development programs in many developing countries have emphasized investment in new or improved technology to modernize smallholder agriculture. Most A.I.D.-sponsored credit programs for small farmers have been designed in conjunction with such programs. They have provided the risk capital for farmers to acquire the necessary inputs recommended for the new technology, for example, seeds of improved crop varieties, fertilizer, chemicals, and farm equipment.

Typically, A.I.D. funds (loan or grant) comprise part of the "seed capital" for a credit program. A technical assistance and training component is included in many projects to establish or strengthen institutions implementing the project, such as agricultural banks, credit unions, and cooperatives.

The rationale for A.I.D. sponsorship is that the availability of credit would resolve two problems common among developing country small farmers:

-- Their lack of investment capital

-- Their tendency to avoid taking risks with unfamiliar cultivation or livestock-rearing techniques

Targeting the loans to small farmers would address A.I.D.'s mandate to help the rural poor in developing countries. As an added incentive, most of the credit programs implemented in the 1960s and 1970s were subsidized: loans were provided at interest rates substantially below market levels.

1.2 Funding

Between 1950 and 1985, A.I.D. funding for credit programs primarily aimed at promoting farmer investment in improved agricultural technology totaled slightly over US$1 billion. The investment was heaviest between 1962 and 1972, totaling US$600 million and averaging US$55 million a year. In addition, A.I.D. provided 872 person-years of technical assistance. Between 1973 and 1985, funding for agricultural credit programs totaled US$311 million, or US$24 million a year on the average.1

1.3 Past Performance

Most agricultural credit programs implemented in the 1960s and 1970s involved the following steps:

-- A direct transfer of A.I.D. funds was made to a developing country central bank or agricultural development bank for a designated credit program.

-- The funds were subsequently made available to other intermediary financial institutions (e.g., rural branches of an agricultural development bank or commercial banks, cooperatives, or credit unions) at a discount rate.

-- Finally, the intermediary institutions lent the funds to the targeted farm population at an interest rate specified by the government for the program (usually at below-market rates.) The loans were usually short-term and could only be used for a particular purpose (e.g., purchase of inputs for hybrid corn production or veterinary products).

The ideal scenario for a successful credit program based on the above model was as follows:

-- The farmers used loans to purchase the necessary inputs to invest in a new technology supported by the program.

1Estimates of expenditures between 1950 and 1975 were cited in E. B. Rice, "History of A.I.D. Programs in Agricultural Credit,

1950-1972," A.I.D. Spring Review of Small Farmer Credit, No. SR 118, Evaluation Paper No. 6, Washington, D.C., June 1973; and Donald McClelland, "Status of USAID Involvement in Credit for Farmers in Developing Countries," A.I.D/Washington, PPC/PDA, 1975. Expenditures between 1973 and 1985 were based on figures cited in Project Papers and Congressional Presentation Reports for projects implemented or approved during the period.

-- The increased crop or livestock production enabled farmers to increase their farm income, improve their standard of living, and repay loans.

-- The payments received by the lending institutions were turned over as new loans, after deducting all lending costs and interest on the central government loan.

-- From a financial perspective, successful credit programs were, therefore, self-sustaining: the initial capital provided under the program constituted a revolving fund that generated sufficient revenue for participating institutions to cover their lending costs and to continue lending.

A major assessment of projects based on the above model--the 1973 A.I.D. Spring Review on Small Farmer Credit Programs--indicated that the experience of the majority of credit programs rarely matched this scenario. In fact, many credit programs encountered serious implementation problems and financial losses. Other A.I.D.-sponsored studies of similarly designed agricultural credit programs made similar observations.2 For example, a 1985 A.I.D. Center for Development Information and Evaluation (CDIE) study found that, of 45 agricultural credit programs implemented between 1973 and 1985, only 11 (less than 25 percent) of these projects facilitated farmers' adoption of the recommended technologies (Lieberson 1985).

1.4 Lessons Learned

There is a general consensus in the literature that A.I.D.'s experience provides insights concerning the following issues:

2The 1973 A.I.D.-sponsored Spring Review findings are contained in a 20-volume report (see Annotated Bibliography). The findings and analytical papers presented at the Review were based primarily on 60 case studies of A.I.D.-sponsored credit programs in 29 countries. Credit for Small Farmers in Develop- ing Countries by Gordon Donald (1976) summarizes the major findings of the Review. Since 1973, A.I.D. has sponsored further research and studies on the major issues raised at the Spring Review. Much of the research was conducted by Ohio State University under a contract with A.I.D.'s Bureau for Science and Technology. The literature generated from the Ohio State University research (see Annotated Bibliography) is an important source

of updated information not only on the lessons learned from A.I.D.'s experience but also on the "new perspective" on credit programs.

-- Feasible conditions for promoting agricultural investment. Successful promotion of agricultural investment depends on the profitability and appropriateness of the technology; the quality of input supplies, extension services, and marketing facilities; and the land and labor resources available to target farmers to help them successfully adopt an improved technology. Because these conditions did not exist or were difficult to meet in many developing countries, only a minority of A.I.D.-sponsored agricultural credit programs successfully stimulated agricultural investment (see Section 2.1).

-- Effects of subsidized interest rate policies. Government policies that set interest rates at substantially below-market levels had adverse consequences for many credit programs that could not generate sufficient revenue to cover lending costs. Persistent inflation at levels above the interest rates charged for loans, combined with low rates of loan repayment, caused many credit programs to become decapitalized; that is, they faced a steady loss in both the amount and the real value of their lending capital. In short, many credit programs that charged subsidized interest rates were financially unviable and could not be self-sustaining.

-- Issues related to credit program design and administration. Apart from interest rates, other important determinants of the financial viability of credit programs also should be considered. Key issues that should be addressed include transaction costs and measures to deal with inflation and to prevent excessive loan default.

-- Evaluation of impact. The fungibility of credit (i.e., credit can be used in many ways), the high cost of monitoring loan usage, and the shortcomings of standard survey methodology should be considered in evaluating the impact of credit programs.

Sections 2.1-2.4 summarize observations and relevant issues concerning the above areas.

1.5 New Emphasis: Developing Self-Sustaining Rural Financial Systems

A major concern expressed in the 1973 A.I.D. Spring Review and subsequent A.I.D.-sponsored research is that the conventional credit program has dealt with financial issues only in the context of a sponsored agricultural production or rural development

project. Consequently, problems endemic in the financial sector as a whole are not addressed or are inadequately resolved. For example:

-- The general shortage of formal credit in the rural sector is met in a piecemeal fashion, on a project-by-project basis. The supply of credit is increased but is limited to a targeted activity and population.

-- Technical assistance and training programs to develop developing country financial institutions is concentrated primarily on developing their lending capacity. Little or no emphasis is given to developing other aspects of financial management necessary to sustain and expand lending operations, such as efficient loan recovery and mobilization of deposits.

Many economists point out that as rural communities are increasingly drawn into the development process, donor and government funds alone would be insufficient to meet their credit needs. Therefore, a broader strategy is necessary to channel financial resources to the rural sector. They argue that more emphasis should be given to developing a self- sustaining rural financial system that can mobilize local resources to support agricultural and rural development. The best strategy is to encourage developing country financial institutions to mobilize rural deposits in conjunction with their lending operations. The survival of the financial institutions would depend on attracting both savers and borrowers and setting interest rates to gain a reasonable profit. Assistance to financial institutions would stress establishing a favorable policy environment (e.g., decontrol of interest rates) and technical assistance to develop their financial management capability. (For a more detailed description of the rural savings mobilization concept and the divergent views expressed by proponents and opponents, see Section 3.1).

1.6 Current A.I.D. Policy Toward Support for Credit Programs

A.I.D.'s current policy toward support for credit programs explicitly supports the decontrol of interest rates and efforts to develop self-sustaining financial institutions. Statements expressing A.I.D.'s current position are contained in the 1982 Policy Paper, Pricing, Subsidies and Related Policies in Food and Agriculture, and the 1985 Policy Paper, Private Enterprise Development. (Relevant excerpts from these documents are included in Appendix A.) A more detailed statement on A.I.D.'s financial market development policies is being finalized.

The basic elements of this policy are as follows:

-- According to Pricing, Subsidies and Related Policies (1982, 10): "A.I.D.'s primary purpose in the area of credit and finance should be to create and to support a

system of financial institutions that effectively mobilizes and allocates private indigenous financial resources. The financial system should be encouraged to mobilize as much savings as the economy's borrowers are willing and able to pay for."

-- One condition for support from A.I.D. to or through financial institutions is that interest rates for loans and deposits be set according to market demand (decontrol of interest rates) or that "substantial measures be taken to reduce interest-rate controls where they have adverse effects on mobilization and allocation of funds" (A.I.D. 1982, ii).

-- Assistance to host country governments would focus on resolving macroeconomic policy issues (e.g., decontrol of interest rates, agricultural pricing, and foreign exchange) that impede agricultural investment and the growth of financial institutions.

-- Assistance to developing country financial institutions would emphasize developing "innovative, cost-effective methods by which they can eventually serve target groups on a self-sustaining basis" (A.I.D. 1982, ii).

A few A.I.D.-supported credit programs implemented in the 1980s follow the current policy by charging interest rates at market or close to market levels. The 1985 CDIE study (Lieberson) showed that these programs reported fewer financial problems and are more likely to be sustainable. Nevertheless, interviews with A.I.D. staff also indicate that, notwithstanding the current emphasis on establishing viable, self-sustaining rural financial institutions, in some situations (particularly in Africa), prior attention should be given to establishing the foundation for agricultural development, for example, agricultural policy reform, adaptive research in small farm technology, and developing extension and marketing services (see Section 2.1).

1.7 Experimental Projects

New approaches are being developed in several projects, including the following:

-- Financial policy reform and rural savings mobilization. The A.I.D. Bureau for Science and Technology's Rural Savings for Capital Mobilization project provides technical assistance through Ohio State University to A.I.D. Missions in Bangladesh, Honduras, the Dominican Republic, and the Philippines to develop "improved approaches to rural savings and credit." (Sections 2.1 and 3.1 present the issues and insights gained from the experience of these projects.)

-- Equity investment. The USAID/Honduras Small Farmer

Livestock Improvement project applies an equity investment concept to establish a joint venture between small livestock farmers and a private firm to invest in improved livestock-raising technology. (The key design features of the Honduras livestock production project are described in Section 3.2.)

2. CREDIT PROGRAMS FOR SMALL FARMERS: SYNTHESIS OF ISSUES

2.1 Feasible Conditions for Promoting Agricultural Investment

The basic assumption of many agricultural credit programs is that the availability of credit would encourage small farmers to invest in new or improved agricultural technology.3 A.I.D.'s experience indicates that this assumption is likely to hold only when certain conditions exist or can be met.

2.1.1 Findings

The following paragraphs describe the conditions that were associated with agricultural credit projects that successfully reached targeted small farmers:

3Conditions for promoting financial market growth are as important as the factors discussed in this section in determining the performance of credit programs. A common flaw in the design of many agricultural credit programs is to identify financial issues only from the perspective of prospective borrowers, ignoring those that affect financial institutions. Consequently, there were numerous examples of participating financial institutions whose initial success in providing credit to farmers and promoting adoption of new technologies was eventually undermined by financial problems. (Key issues pertaining to the financial sector and the performance of financial institutions are discussed in Sections 2.2 and 2.3.)

Characteristics of the Technical Package. A profitable and culturally appropriate technical package or technology exists but cannot be adopted without additional capital investment by farmers. Agricultural credit programs that successfully promoted farmer adoption of technical packages were those that supported packages with the following characteristics:

-- Required capital investment. The recommended technology required not only the use of hybrid seeds but also farm tools or light machinery to plant, harvest, or process the crop.

-- Successful performance and profitability of the new

technology. The technical package performed well under local agronomic and market conditions and consistently yielded significant increases in cash income. The technical packages supported by many A.I.D. programs, however, rarely met this condition. For example, poor performance and low profitability of project-supported technical packages were reported in almost 80 percent of the A.I.D. credit programs that failed to promote agricultural investment (Lieberson 1985, 22).

-- Appropriate technology. The target population was able to accommodate changes in cultivation techniques or the time required for farming activities. For example, labor requirements were compatible with existing practices (e.g., division of labor between men and women in the farm family) and did not involve substantial trade-offs with other activities (e.g., off-farm employment or child-rearing).

Existing Agricultural Services. Input and other supplies, extension services, and marketing facilities to support the new technology are adequate and can be delivered on a timely basis.

Government Policies Toward Smallholder Agriculture. Existing agricultural pricing policies (farmgate and market prices), taxes, and land tenure laws do not discriminate against the target farm population.

Characteristics of Small Farm Population: Marginal Versus Commercially Viable Farmers. The target population should have the land and labor resources required to profit from investing in a project-supported technology. Case studies of beneficiaries of A.I.D.-sponsored credit programs indicate the following:

-- Marginal farmers. The availability of production loans was of little relevance to farmers who did not have the necessary labor or land to make additional investments in agricultural activities. Such farmers included landless or part-time subsistence farmers for whom (1) agricultural production was a marginal activity and (2) off-farm, or nonagricultural employment, was a more important, and preferred, source of cash income.

Evaluation reports indicate that many farmers in these categories refrained from borrowing because they did not wish to invest in agriculture, or used loans partly for nonagricultural purposes.

-- Commercially viable farmers. The vast majority of farmers who benefited from agricultural credit programs were, or had the potential to become, partially or fully commercial farmers. Most beneficiaries had the following characteristics:

- They were owners, tenants, or shareholders operating farms of an economically viable size for the

project-supported agricultural activity (i.e., the area devoted to a recommended technical package was sufficiently large for the farmers to profit significantly from their investment). These often included farmers who were better-off than the intended project beneficiaries.

- Agricultural production was their main, or an important, source of livelihood. Alternative cash-employment opportunities were limited or did not compete for the labor, time, and credit required for project-supported agricultural activities.

2.1.2 Implications of Findings--Preliminary Assessment of Conditions

In many developing countries, the conditions necessary to stimulate agricultural investment are difficult to meet; they either do not exist simultaneously or are only partially present. In many situations, therefore, agricultural credit programs are simply inappropriate; other situations might require substantial project preparation and rethinking about the program design. In general, A.I.D.'s experience indicates that decision-makers should at least assess whether an agricultural credit program is appropriate, given existing conditions. Premature introduction of a credit program should be avoided.

2.1.3 Relevant Issues

Evaluation reports, papers presented at the 1973 A.I.D. Spring Review, and interviews with A.I.D. staff provide useful suggestions relevant to the issues discussed in the following paragraphs.

Agricultural Policy Reform. If existing pricing and other policies concerning smallholder agriculture are unfavorable for expanded production, preliminary considerations should focus on initiating a dialogue on agricultural policy reform. (This could be undertaken in conjunction with a program for financial policy reform, as discussed in Section 2.2.)

Geographic Coverage of Agricultural Credit Program. The difficulty of meeting the conditions listed above (Section 2.1.1) increases with broader geographic coverage. Many failed programs were simply too ambitious in scale. Yet when a credit program is confined to a small geographic area and population, it cannot gain from economies of scale, for example, reduction of lending costs and spreading of risks. A compromise solution that has been tried successfully is to first test local condi- tions in a new geographic area by implementing a pilot project before expanding the program into that area.

Tests of the Technical Package. If a project area covers a large geographic area, adequate field trials of new agricultural technologies should be performed at sites within the project areas. Local variations in agronomic conditions and sociocultural characteristics of the farm population can significantly affect the performance of, and response to, the technical package. Farmer participation (which should include consulting female cultivators) in field tests can provide valuable feedback on the sociocultural factors that should be taken into account.

Agricultural Support Services and Marketing Facilities. The resources and management capability of institutions that will provide the necessary inputs and support to farmers should be assessed by evaluating their ability to (1) coordinate with one another and the institution providing farmers with project loans, (2) collect relevant information for planning and manage- ment purposes, and (3) deliver timely and adequate services. Where necessary, project assistance should be provided to strengthen the institutions in these areas. For example, if extension activities include delivering loans to farmers and supervising their use of the loans, it might be necessary to provide project or government funds to cover training and loan administration costs.

Identification of Potential Beneficiaries. Feasibility studies of the project area should include an analysis of existing land tenure and ownership patterns, agricultural and nonagricultural activities, and other factors that are likely to determine farmers' responses to the technical package and the availability of credit. Past experience indicates that distinguishing between marginal and commercially viable or potentially viable farming operations can alert project designers to the characteristics of potential beneficiaries. Failure to make the distinction resulted in many credit programs being misdirected to marginal farmers who could not use agricultural credit effectively or to unintended beneficiaries, that is, to better-off farmers.

Inclusion of Nonagricultural Loans. Feasibility studies should also determine whether a broader credit program might be more appropriate for a target population. For example, if a target population includes a substantial number of farm families who could increase their total cash income by investing in nonagricultural activities, loans also could be made available for such activities. Several A.I.D.-sponsored credit programs implemented in the 1980s include loans for small-scale retailing businesses and handicraft activities.

Technical Expertise for Feasibility Studies. Study teams should include members with the expertise to analyze nontechnical issues. For example, a specialist in institutional and management aspects of agricultural credit programs and a sociologist or anthropologist with the relevant field experience would provide useful guidance concerning design and implementa- tion strategies.

Phased Credit Program. In situations where existing conditions are unfavorable but could be improved, it might be necessary to plan a long-term, phased agricultural development program. The initial phase of the project would focus on policy reform, developing an appropriate technology, and strengthening research and extension services. After these preconditions have been established, an agricultural credit program could be attempted.

2.2 Financial Policies: Interest Rates and Policy Reform

This section summarizes the detrimental effects of subsidized interest rate policies and inflation on credit programs and on the performance of implementing institutions. Subse- quently, the discussion focuses on the issues that have to be addressed in undertaking financial policy reform.

2.2.1 Past Experience With Subsidized Interest Rates

A fundamental lesson learned from A.I.D.'s experience is that many credit programs that supported subsidized interest rate policies were financially unviable. The ceilings on the interest rates charged for the loans did not allow participating financial institutions to generate sufficient revenue to cover all lending costs. Consequently, the following results occurred:

-- Many participating institutions suffered continuing financial losses and could not sustain the credit program.

-- Substantial government subsidies were required to allow government-owned agricultural banks and other public sector lenders to continue their lending operations.

-- In their efforts to minimize risks, most participating financial institutions adopted lending policies that discriminated against small farmers in favor of relatively better-off farmers (see Section 2.3.3 on transaction costs).

-- To cut their losses, many financial institutions withdrew from the credit program altogether and, consequently, the coverage of the program steadily diminished.

In addition, many economists have raised questions concerning the macroeconomic effects of subsidized interest rate policies. They argue that artificial controls on interest rates might channel financial resources to support desired development activities, but that they do so at a cost to the developing country's financial sector and the economy as whole. First,

mandated interest rates deprive the developing country's financial system of a market-based pricing mechanism for allocating financial resources and attracting savings. Consequently, the developing country's financial system operates less efficiently than it would under free market conditions. Second, an opportunity cost is involved in underpricing the financial resources channeled into special credit programs and foregoing investment in other development activities. Third, low interest rates discourage savings by rewarding those who save with low returns; thus, they inhibit capital formation through the mobilization of local financial resources. The loss to the economy as a whole depends on the degree to which interest rates are controlled and on the costs to the government of subsidizing credit programs. Nonetheless, subsidized interest rate policies are an economically inefficient means of allocating financial resources and, worse, could cause detrimental effects on the developing country's financial system.

2.2.2 Exacerbating Factors: High Inflation and Poor Loan Recovery

In the 1970s, the detrimental effects of subsidized interest rates were exacerbated by high inflation in many developing countries. Many credit programs were not charging real rates of interest (i.e., nominal interest rates adjusted for inflation). In fact, many programs were charging negative interest rates (rates below inflation) and losing, in real terms, the value of their lending capital and interest revenue. Low rates of loan recovery were also associated with low interest rate loans. Many borrowers regarded the loans as political favors from the government and, therefore, were inclined to defer repayment or default on their loans. The combined effect of interest rate controls, persistent inflation, and poor loan recovery caused many specialized agricultural lending institutions to fail. (Appendix B describes the typical scenario encountered by many of these institutions.)

2.2.3 Financial Policy Reform

A.I.D.'s current policy is to encourage host country decontrol of interest rates--that is, "elimination of controls on interest rates, so that rates will be set at market-clearing rates through financial intermediation, rather than at arbitrary levels by government controls" (A.I.D. 1982, 11). Specifically, interest rates to final borrowers (a credit program's target group) "should be at developing country market determined interest rates" (A.I.D. 1985, 13). In practice, however, decontrolling interest rates is not a simple task. As indicated below, it involves more than raising interest rates to market levels and should be dealt with on a broader basis.

Decontrol of Interest Rates: Determining "Market" Clearing

Rates. In most developing countries, there is no single "market" rate of interest. Most developing country financial markets are not integrated systems. The typical developing country financial system usually comprises a small, formal sector that charges official interest rates and a larger, informal sector that charges different and higher interest rates. In many developing countries, the informal market is estimated to provide 80 percent of the credit borrowed by farmers. Therefore, in most cases, project designers should determine the interest rate and related fee charges (i.e., effective interest rate) that participating financial institutions could charge borrowers. The effective interest rate should allow financial institutions to cover all costs and earn a reasonable profit yet be low enough to attract target borrowers and compete with moneylenders in the rural, informal market.

A preliminary study of the existing formal and informal financial markets might be necessary to obtain relevant information for determining an appropriate, effective interest rate for a credit program. Effective interest rates should allow participating financial institutions to cover the following:

-- Costs of funds (e.g., deposits and savings adjusted for central reserve requirements, rediscount facilities, bonds)

-- Costs of administration (see Section 2.3.3)

-- Costs of (expected) bad debt

-- Costs of foreign exchange risk, where applicable

-- Profits

Other factors also should be considered. These include adjustments for inflation (nominal rates should be positive after adjustment for inflation) and competitiveness with prevailing interest rates in the informal market and other sectors of the economy. A.I.D.-sponsored credit programs have successfully attracted borrowers by simply charging effective interest rates that are significantly lower than moneylender rates but are high enough to allow participating institutions to clear a profit. Periodic interest rate adjustments would be necessary to reflect changes in the financial market. Therefore, the design of a credit program should include a mechanism for resetting interest rates; for example, the Rural Finance Project in Bangladesh established an Advisory Committee on Interest Rates to review interest rates semiannually.

Setting interest rates at "market" levels in developing countries requires analytical skills, information, and continuous monitoring of trends in rural and national financial markets. Where participating developing country financial institutions do not have this capability, as is the case in many developing countries, appropriate technical assistance and training should be provided.

A.I.D.'s experience indicates that even when technical expertise and information are available, A.I.D. Missions and the host country government might have difficultly agreeing on what is "appropriate" during project implementation, and agreement may require sustained negotiation. For example, there may be disagreement concerning the extent to which interest rates should be decontrolled, or whether the rates are high enough for financial institutions to clear a profit yet low enough to attract borrowers.

Related Issues: Insights From the Bangladesh Rural Finance Project. Financial policy reform is central to the current ongoing phase of the USAID/Bangladesh Rural Finance project. The project will help establish a rural finance system to mobi- lize savings and provide credit to rural communities. Project funding is provided in tranches, each conditioned on specific policy reform measures to reduce or eliminate subsidies on rural loans and to encourage savings and loan repayment. A forthcom- ing mid-term evaluation of the program should identify policy reform issues pertinent to the design of similar projects. Interviews with A.I.D. staff and the Ohio State University research team providing technical assistance to the Bangladesh project revealed the following preliminary findings:

-- Effective financial policy reform requires a sectorwide approach. Financial policy reform necessarily involves a gradual process to deal with an interrelated set of government policies concerning the financial system as a whole. For example, apart from interest rate poli- cies, other related issues that should be examined include foreign exchange rate policies, adjustments for inflation, and regulations governing the operations of financial institutions (e.g., mandatory reserve require- ments and the allocation of government and donor funds for special credit programs). Because these are macro- economic issues, they cannot be adequately addressed in the context of a credit project. In short, financial policy reform is more complicated than resetting or decontrolling interest rates and should be addressed in the context of a sectorwide policy reform program.

-- Political constraints should be considered. Those negotiating and implementing financial policy reform have to consider that in many developing countries, low interest rate policies and other controls on financial markets are tied to the government's political inter- ests. Governments are likely to resist politically unpalatable decontrol measures.

2.3 Credit Program Design and Administration

2.3.1 Introduction

Agricultural lending, particularly lending to small farmers, is riskier and costlier than other types of lending for the following reasons:

-- Agricultural production is subject to many risks that affect farmers' creditworthiness, income, and ability to repay loans, for example, price and yield fluctuations, inadequate agricultural services and marketing facilities, and crop losses due to bad weather.

-- In many developing countries, the farm population is dispersed, and many communities are in remote areas, making it both difficult and costly to target loans to particular segments of the population, for example, small and poor farmers or producers of a particular crop.

-- Individual loans to small farmers are typically in small amounts yet require as much administration as larger loans, so the cost per small farmer loan is higher.

-- In many developing countries, existing rural financial institutions are few and inexperienced, or they lack the resources to develop cost-effective strategies to provide loans to target groups.

The basic problem that confronts project designers is how to encourage financial institutions to provide credit to farmers on an economically viable and sustainable basis. The following sections summarize observations expressed in evaluation reports and other studies concerning issues that were inadequately addressed in credit programs implemented in the 1960s and 1970s.

2.3.2 Financial Viability and Sustainability of Credit Programs

A credit program is financially viable if the interest on loans provided under the program generates sufficient revenue for a lending institution to cover all costs and earn a reason- able profit. If the credit program is financially unviable--that is, operating costs greatly exceed revenue--then the institution would either have to draw on resources from its other, more profitable activities, or on government subsidies to defray its costs and losses. Institutions implementing financially unviable credit programs also are likely to minimize risks by adopting lending practices that often discriminate against intended beneficiaries (see Section 2.3.3). Losses accumulated over the long-run are likely to tax the government or the financial institution's ability to maintain the credit program over the long run.

In the past, financial viability was not considered an issue because most credit programs were automatically subsidized in three ways. First, the underpricing of A.I.D. and government funds supporting the credit programs allowed financial institu-

tions to obtain funds at substantially lower costs than in the commercial financial market. Second, most credit programs were implemented by government-owned institutions whose operating costs were borne by the government. Third, transaction costs (see Section 2.3.3) were, in practice, absorbed by lending institutions or by borrowers. Consequently, a significant portion of the true costs of the credit programs were hidden. If these hidden costs were not taken into account, a subsidized credit program could be considered "financially viable" if the nominal interest rates on loans to final borrowers exceeded the cost of obtaining concessional loans from the government and donor.

Experience indicates, however, that over the long run, the very subsidies that supported the credit program are likely to undermine the program's sustainability and have pernicious effects on the financial sector and the economy as a whole (see Section 2.2). Equally important, subsidized interest rates have not benefited poor farmers and are not necessary to promote adoption of recommended technologies (See Appendix D.) For all of these reasons, the issue of financial viability can no longer be ignored.

There is much disagreement over how to define "financial viability" and "self-sustainability" in the limited time span (e.g., 5-years) of most credit projects. However, there is general agreement that interest rates, transaction costs, inflation, and bad debt are major factors that can undermine the financial viability and self-sustainability of credit programs. The problem of interest rates was outlined in Section 2.2. The other factors are summarized below.

2.3.3 Transaction Costs4

A loan transaction involves costs for both the lender and the borrower. The lender has to bear administrative costs associated with loan processing, accounting, and record-keeping. Borrowers have to meet opportunity costs and cash expenses associated with securing and repaying loans.

4The findings summarized in this section are based mainly on recent studies published by Ohio State University under its Agricultural Finance Program. (See Annotated Bibliography for a complete list of the publications and ordering information.) In general, targeted loans are more costly to administer than nontargeted loans because of their special application, monitoring, and reporting requirements. For example, in Honduras, the average cost per targeted loan borne by the Agricultural Development Bank is 8.4 percent of the loan; by comparison, the cost of a nontargeted loan issued by a private commercial bank is 2.5 percent of the loan (Cuevas and Graham l983). Case studies comparing the costs of many efficiently implemented

targeted credit programs indicate that administrative costs constituted at least 25 percent of the value of the loans extended (Adams and Vogel l985). The studies also demonstrate that costs borne by borrowers can be as high as 21.7 percent of the loan amount. In all the countries studied, the transaction costs associated with small loans are significantly higher than those for larger loans, although there is no conclusive evidence that these costs cannot be reduced through high-volume lending (Cuevas and Graham l984b).

Studies also have shown that the high administrative costs of targeted credit programs, especially those that charged subsidized interest rates, caused many lenders to compensate by instituting the following changes:

-- Raising commission charges for small loans

-- Requiring elaborate application procedures that increase application expenses and reduce the number of qualified applicants

-- Reducing the number of loans and increasing the size of individual loans to favored borrowers

These practices increase borrowers' costs and disqualify many small farmers from the programs. Consequently, they defeat the purpose of the credit programs, which is to increase small farmers' access to formal credit and reduce borrowing costs by charging low interest on loans.

Administration costs can be minimized through the following measures:

-- Minimizing targeting and reporting requirements

-- Keeping loan application, screening, and repayment procedures simple

-- Increasing loan management efficiency through decentralized decision-making and improved information-gathering and bookkeeping techniques (e.g., by using computer software)

-- Group lending programs (see Appendix C for examples)

-- Improving the design of loan portfolios (see Section 2.3.6)

Where necessary, funds could be provided for technical assistance, staff training, and equipment purchases (microcomputers and software for an accounting and information system).

2.3.4 Measures To Deal With Inflation

Few A.I.D.-supported credit programs implemented in the l970s incorporated adequate measures to deal with inflation. Consequently, in many developing countries where inflation was high, the viability of many credit programs was jeopardized by a steady loss in the value of the lending capital (see Section 2.2.2). Where inflation continues to be a problem, two protective measures could be taken: interest rates could be adjusted periodically to reflect inflation (see "Decontrol of Interest Rates" in Section 2.2.3, pp. 13-14); repayment-in-kind could be included in the design of the loan portfolio, as illustrated in the Honduras Small Farmer Livestock Improvement project described in Section 3.2.

2.3.5 Protection Against Bad Debt

Credit programs often include reserves for bad debt, which provide lending institutions some protection. The interest rates to final borrowers also should reflect the costs of bad debt. Measures to prevent bad debt are often overlooked or inadequate. This shortcoming reflects largely the inexperience of many lending institutions in serving agricultural clientele, (particularly small farmers) and their reliance on standard collateral and repayment policies appropriate only for urban borrowers. Staff training and the assistance of rural credit specialists might be necessary to address this problem.

Successful experiments with different tactics indicate that repayment policies should take into account inherent risks in agricultural investments (e.g., weather vagaries and disease epidemics) and the characteristics of the target farm population. The ideal policy should include a blend of "hard" and "soft" tactics. The hard policies on repayment would encourage borrowers to develop a "credit discipline," while the soft policies would stress a friendly and flexible approach in dealing with clients. Hard tactics would rely on close supervision and strict adherence to repayment policies. Soft strategies require efficient techniques to gather information about borrowers and sustained efforts to establish a long-term relationship with borrowers.

Examples of hard and soft policies include the following:

-- Hard policies: delinquent loans are not written off; habitual delinquents and defaulters are heavily penalized, including foreclosure of their property.

-- Soft policies: Prompt repayment is rewarded with second and subsequent loans (experiments indicate that borrowers are less likely to be delinquent on their loans under these conditions).

2.3.6 Loan Portfolio Design: Important Determinants of Farmer Response

An important lesson from past experience is that the design of loan portfolios should consider not only supply and administrative aspects (i.e., funds available for loans and conditions for loans) but also factors that are likely to determine farmers' response to the credit program. These factors include the following:

-- Prerequisites for investment in smallholder agriculture (see Section 2.1)

-- Borrowing costs: costs of loan application and repayment (see Section 2.3.3)

-- Loan portfolio features: the type of credit and facilities available, collateral requirements, loan application and disbursement procedures, and repayment policies (described in the following section)

2.3.7 Appropriate Loan Portfolio Features

There is no single successful formula for designing loan portfolios for small farmers. On the contrary, A.I.D.'s experience indicates that successful agricultural credit programs developed for American farmers are inappropriate for many developing countries. Models successfully developed for one region of a developing country failed when applied to other areas. In short, each loan portfolio should be adapted to the local sociocultural context. In most cases, the design team should include a credit specialist working in conjunction with another professional with a social science background. The social scientist should assist the credit specialist in identifying important economic, social, and cultural factors pertaining to intended beneficiaries that should be considered in designing the project.

A.I.D. and other donors have experimented with several design features appropriate for certain situations. Examples include the following:

-- Inclusion of loans for nonagricultural investment. If the majority of targeted farmers need more than agricultural production loans, then production loans could also be used to meet the other needs. To prevent the misuse of loans intended for input purchase, it might be necessary also to provide loans for nontargeted investment (e.g., basket-weaving, small retailing business, and agricultural processing). Credit programs that include nonagricultural lending have a broader objective: to increase the total cash income of beneficiaries rather than farm income alone.

-- Collateral requirements--alternatives to land titles. Standard bank collateral requirements such as land

titles might be inappropriate in project areas where target farmers cultivate land to which they have no clear land title or which is communally owned. Alternative collateral arrangements could resolve the problem: guarantees based on the ability of farmers to make repayments from crop sales, chattel mortgages, crop liens, and group guarantees.

-- Tying loan disbursement and repayment to local agricultural production cycles. Loan disbursement and repayment policies should take into consideration the production cycles of the target farm population. For example, loan disbursement and repayment could be scheduled to coincide, respectively, with the planting season and crop sales. Repayment schedules should not force farmers to sell their crops immediately after harvest, when prices are low. If a credit program covers a large geographic area with significant variation in the timing of farming activities between project areas, it might be necessary to stagger the loan disbursement and repayment schedules accordingly.

2.3.8 Choice of Financial Institutions: Large Banking Network Versus Local Organizations

The choice of local institutions to administer a credit program depends on the size of the credit program and what is available. Most credit programs that involve the disbursement of millions of dollars to a geographically dispersed population rely primarily on government-owned agricultural banks specializ- ing in relending donor funds. Smaller scale credit programs have experimented with credit unions, cooperatives, and various forms of voluntary associations. In general, regardless of organizational type, most lending institutions are likely to encounter implementation problems if the issues discussed above are not resolved. The problems of specialized banking institutions are summarized in Appendix C. The performance of local organizations has been mixed: there have been failures as well as successes. The causes reflect local conditions and individual histories of the institutions.

The advantage of using local credit unions, cooperatives, or private voluntary organizations is that they are better able to tailor loan portfolios to clientele in a particular locality and to experiment with innovative strategies such as group loans to minimize borrowers' costs and loan delinquency. However, there are disadvantages as well. Their administrative capacity is limited to small portfolios and localized clientele, and administrative costs per loan can be as high as those for larger institutions.

A combination of banks and local organizations can be used effectively. The major commercial or government-owned banks cover a large geographic area via their branch offices. Credit

is extended to local cooperatives or farmers' organizations dealing directly with farmers. Compared with banks, local organizations have two major advantages. First, their knowledge of their clientele enables them to use the hard and soft tactics more effectively in addressing delinquency problems (see Section 2.3.5). Second, the proximity of local organizations to their clientele improves access and lowers transportation and other costs associated with securing or repaying the loans.

2.3.9 Equity Considerations

A.I.D.'s past experience does not provide conclusive evidence on whether extensive banking systems could be cost-effectively used to increase the access of special target groups to formal credit sources. Some observers point out that an existing banking system with the necessary technical expertise should be able to minimize costs through high-volume lending and efficient management. Others argue that although that might be the case in principle, in reality only a few developing countries have rural banking networks with the financial and institutional capacity to manage and maintain special credit programs at low cost. Moreover, experience suggests that in general, in order to minimize loan risks and transaction costs, financial institutions involved in targeted credit programs tend to engage in counter-efforts that discriminate against borrowers. Furthermore, even if loans were disbursed as intended, it is difficult to assess the direct benefits to target groups (see Section 2.3 on monitoring and evaluation). However, if a credit program is small, with a fairly homogeneous and localized target population (e.g., small farmers in remote areas or women cultivators of a specific crop), it might be possible to make special provisions, such as the following:

- -- Arrangements to provide intended beneficiaries with convenient access to project loans (e.g., a separate loan window for women; mobile banks to serve remote areas; or the use of extension workers, including female staff, to inform and assist loan applicants)

- -- Special loans for women who wish to invest in off-farm income-generating activities such as handicrafts

- -- Involvement of a local interest group to organize female borrowers for a group lending or savings program

- -- The use of simple, low-cost data collection techniques to monitor access of special target groups to project loans

2.4 Information for Monitoring and Evaluation Purposes

Because most A.I.D.-sponsored agricultural credit programs

are designed to promote a specific activity (e.g., adoption of a technical package) or to assist a particular population group (e.g., small farmers or women), descriptive statistics are usually required from participating institutions indicating that loan requirements are being met (i.e., that borrowers are from the targeted population group) and that the loans are being used for intended purposes (i.e., that borrowers use the loans to purchase a recommended technical package or equipment). Besides these reporting requirements, most targeted credit programs also require information that provides a basis for assessing the contribution of the credit programs to increased agricultural production. The standard practice is to conduct farm household surveys to interview borrowers about their use of loans.

These two data collection approaches have major shortcomings:

-- Reporting requirements add significantly to the administrative costs and reduce the efficiency of implementing institutions, especially those serving several donors.

-- Household sample surveys are not only expensive but the reliability and utility of the findings are often questionable.

2.4.1 Costs to Financial Institutions

Critics argue that an unnecessary cost is borne by financial institutions in collecting and processing detailed information on individual borrowers and keeping separate accounting records for each donor-sponsored credit program. Much of the information is irrelevant for loan monitoring but is deemed necessary to enable donors to evaluate their respective credit programs. Record-keeping and preparation of reports can be burdensome for rural financial institutions with limited budgets and staff. Case studies indicate that the administrative costs of financial institutions specializing in administering targeted credit programs are significantly higher than those of commercial banks (Cuevas and Graham 1984a). Other studies indicate that the high costs of lending targeted loans can cause lenders to discriminate against targeted borrowers. (See Section 2.3.3.)

Anecdotal evidence suggests that excessive information requirements also reduce the efficiency of lenders in serving targeted clients. Loan application becomes complicated, increasing the time borrowers have to spend filling out forms and securing required documents. Because processing of complicated loan applications is time consuming, the waiting period for loans is also lengthened. Staff time required for processing loans and preparing reports for donors and government agencies can be so overwhelming that other aspects of loan administration, such as monitoring and recovering loans, are neglected.

More optimistic observers believe that the high costs associated with information processing could be decreased by developing more efficient record-keeping and accounting techniques. The use of computers would greatly reduce the time and number of staff needed to process information. Donors could provide funds for equipment and technical assistance to develop the appropriate technology and train developing country staff.

2.4.2 Assessing Project Impact: Limitations of Standard Survey Methodology

Many economists question the reliability and utility of costly household surveys and other ex post studies to evaluate the impact of agricultural credit programs (see, for example, Adams 1985, David and Meyer 1980, Von Pischke and Adams 1980). The reasons include the following:

-- Because credit is fungible (i.e., credit can be used in many ways), it is difficult to determine the extent to which farmers use the loans provided to purchase recommended agricultural packages.

-- The heterogeneous and dispersed farm population in most developing countries make it impractical and expensive to conduct household surveys of a sufficient sample size and coverage to verify farmers' actual use of project loans.

-- Even when loan usage can be determined, it is virtually impossible to separate the effects of credit from other project inputs (technology, seeds, fertilizer, and so on) on farm production.

-- Furthermore, it is virtually impossible to prove that borrowers would not have increased their agricultural production without the loans, given the high probability that most borrowers usually have access to other credit sources.

Critics maintain that the problem of evaluating credit programs reflects the popular misconception that farmers would use targeted credit as they would agricultural inputs, that is, to increase agricultural production. Experience indicates that many farmers are just as likely to use agricultural credit to meet nonagricultural credit needs. Close supervision to prevent misuse would be costly and impracticable. In short, donors should recognize the fungibility of credit and abandon the idea that the direct benefits of targeted credit programs, separate from other confounding factors, can be empirically demonstrated. For the same reason, many critics are opposed to the concept of targeted and supervised credit programs, that is, programs that stipulate and monitor the use of loans.

2.4.3 Alternative Approaches

A.I.D.'s current policy on support for credit programs provides a basis for developing alternative approaches to assess the performance of A.I.D.-sponsored credit programs. (See Appendix A for excerpt from the l982 A.I.D. Policy Paper Pricing, Subsidies, and Related Policies in Food and Agriculture.) Monitoring and evaluation activities could focus on the long-term goals of A.I.D.'s current policy on support for credit programs: the development of self-sustaining financial institutions to service farmers and other rural clientele. For example, key issues would be addressed as follows:

-- Policy reform. Evaluate efforts to institute the necessary policy changes to encourage the growth of rural financial institutions.

-- Performance of financial institutions. Monitor and evaluate efficiency in loan portfolio management.

-- Availability of formal credit to target groups. Evaluate coverage (i.e., the percentage of farmers using credit) and, through feedback from borrowers, the quality of services available to target groups.

-- Self-sustainability of credit programs. Monitor changes in the financial status (balance sheet) of lending institutions; assess strategies to maintain lending operations, to prevent excessive capital erosion, and to expand lending capacity (e.g., through mobilizing deposits).

Projects would need to include adequate funding for technical assistance, staff training, and other costs related to data collection and studies to meet project monitoring and evaluation requirements. In the past, many A.I.D.-sponsored programs did not allocate funds for an information system. Consequently, participating financial institutions had to bear the extra costs of providing information to meet the A.I.D. project's (not the institutions') needs.

2.4.4 Evaluation Criteria To Assess Performance of Financial Institutions--Example

An example is proposed by Dale Adams (1985) and Richard Meyer (1985) of Ohio State University, using the following criteria:5

-- Access to services provided by financial institutions. Number of people in target areas who regularly use deposit or loan services

-- Management efficiency. Innovative management strate-

gies and information processing that lead to a steady decline in costs per unit of money handled; use of staff resources as indicated by number of loan or deposit accounts per bank officer or profits per unit of savings mobilized

5The list of criteria is a composite of those proposed by Adams and Meyer.

-- Changes in the quality of services. User-friendly innovations to attract clients, encourage repayment, and repeat borrowing (High loan recovery rates [amount of payments collected during a period as a percentage of payments due during that period] and low delinquency rates would indicate favorable borrower response.)

-- Savings mobilization. Extent to which savings mobilization has been encouraged by the financial institution, as indicated by increased deposit accounts and changes in volume of savings mobilized and in the ratio of savings to loans

-- Institutional viability. The institution's ability to maintain self-sustaining growth, as indicated by number of clientele; volume of local resources supporting its lending operations; and high loan recovery rate, profits, debt to equity ratio, and reserves for bad debt

An analysis of the interrelationship among the above criteria can be performed to identify possible tradeoffs and negative consequences for target groups. For example, lending costs may have been reduced by extending large loans to a few favored borrowers.

3. EXPERIMENTAL PROJECTS

3.1 Rural Savings Mobilization--A.I.D.-Funded Experiments

Under a l980 "Cooperative Agreement on Experimental Approaches to Rural Savings" with the A.I.D. Bureau for Science and Technology, a research team from Ohio State University is providing technical assistance to strengthen rural financial institutions in several countries. A project has recently been completed in Honduras. Three other projects--in Bangladesh, Dominican Republic, and Niger--are currently being implemented. A fifth project--in the Philippines--is under consideration.

The following sections outline the theoretical underpinnings of the Ohio State University approach and lessons learned so far (based on interviews with the Ohio State University team in April

l986 and relevant literature--see Annotated Bibliography). A forthcoming evaluation will assess the performance of the projects that have received guidance from the Ohio State University team.

3.1.1 The Ohio State University Approach

In the l960s, economists began to question the traditional Keynesian view that capital supplied at low interest rates would accelerate investment. The emerging problems of numerous rural development projects based on the Keynesian approach convinced the critics that cheap credit undermines rather than accelerates investment. Combined with other government controls on agricultural prices and foreign exchange rates, low interest rate policies discourage the growth of both the agricultural sector and rural financial systems.

Shaw and McKinnon proposed a different perspective on the relationship between finance and development.6 They argued that an efficient financial system would perform a vital role in mobilizing the necessary resources to meet the demand for investment capital. Therefore, market forces should be allowed to operate freely to encourage the growth of developing country financial institutions. Commercial interest rates would allow financial institutions to clear a profit and encourage the mobilization of financial resources to support investment.

The Ohio State University approach is based on the Shaw-McKinnon perspective. It focuses on the potential role of developing country rural financial institutions in mobilizing local resources to finance agricultural and other rural investment. The main themes in the Ohio State University argument include the following:

- -- If policy and market conditions are favorable, a network of self-sustaining rural financial institutions could be developed to provide a full range of financial services to rural areas.

- -- The financial viability and sustainability of rural financial institutions will depend on their ability to minimize transaction costs and charge interest rates that allow them to cover all costs and clear a reasonable profit.

- -- Market interest rates, convenient deposit facilities, and other financial services will encourage rural communities to save.

- -- Over the long run, local savings will be able to sustain the lending operations of rural financial institutions.

6The central arguments of the new perspective are expressed in Von Pischke et al. (1983) and Adams et al. (l984).

-- Interest rates for savings and loans will be determined by market forces.

-- The best strategy for external assistance is to support policy reform and long-term strategies to develop an integrated rural financial market. Assistance could include projects to strengthen central banks and other financial institutions; funds to subsidize startup costs related to extending financial services to rural areas, to develop research capacity, and to support testing of financial innovations. Technical assistance could be provided to develop local research and manage- ment capacity and transfer financial technologies.

-- Traditional large-scale capital transfer to local financial institutions to provide credit for targeted activities should be avoided. Past experience indicates that this practice has negative repercussions on the viability and lending practices of financial institutions. Moreover, it undermines efforts to mobilize local savings and develop economically viable rural financial institutions.

This perspective contrasts sharply with the conceptual approach that guides the design of conventional agricultural projects, as indicated in the following matrix:

Conventional Approach	Rural Savings Mobilization Approach
Emphasizes mobilization of external funds to finance lending	Emphasizes mobilization of rural savings to finance lending
Targeted portfolio: loans and borrowers specified	Diversified portfolio: nontargeted lending to all potential rural clients
Charges subsidized interest rates	Charges real rates of interest
Role of financial institutions: to lend donor and government funds allocated for project	Role of financial institutions: to use mobilized rural savings to lend to borrowers
Evaluation focused on borrowers: assessment of loan usage and impact on farm production	Evaluation focused on institutional performance: efficiency in serving clients and self-sustainability of participating financial institutions

The technical assistance provided by the Ohio State Univer-

sity team varies in duration and type of issue addressed in each country. However, their collective work covers a range of issues, including the following:

-- Policy reform: conducting studies that identify policy issues to be addressed by A.I.D. Missions in dialogue with host country governments

-- Institutional viability

- developing strategies to assist rural financial institutions in mobilizing local savings to support lending operations

- discouraging loan delinquency by rewarding prompt repayment with subsequent loans

-- Transaction costs

- developing low-cost record-keeping techniques and information systems to reduce time and staff required to monitor deposit accounts and loans

- introducing convenient, user-friendly services to depositors and borrowers (e.g., convenient hours and simple, low-cost application procedures)

Discussions with the Ohio State University research team indicate that the experiments in Honduras, Dominican Republic, and Bangladesh have yielded significant results and lessons. Key findings were presented at a recent conference organized by the Rural Development Sector Council in A.I.D./Washington and are summarized below.

3.1.2 Summary of Findings

-- There is a strong demand for rural deposit facilities. This finding challenges the popular assumption that rural communities prefer to save only in the form of tangible assets (e.g., gold, animals, stocks of grain).

-- Rural savings can be generated by using appropriate incentives and providing interest rates that yield a positive real rate of return (i.e., the return on deposits is positive after accounting for inflation). In the first year of operation, the Dominican Republic project mobilized US$2.5 million from 21,000 accounts.

-- The cost for launching a savings mobilization program is relatively low if an existing network of institu- tions can be used. If not, the costs of establishing new institutions would add substantially to the costs of the program, and a period of several years would be necessary to break even.

-- Deposit mobilization is not an easy task. Even when existing institutions are used, it requires substantial reorganization and training to provide the necessary administrative support.

-- Because rural deposits are typically small, the viability of a savings program would depend greatly on the institution's ability to mobilize a large number of deposits. Consequently, the costs of monitoring accounts may be high. However, the use of computer facilities and more efficient data collection techniques can reduce administrative costs significantly.

3.1.3 Lessons Learned

The Ohio State University team warns against generalizing from the experience of the three projects to provide "how to" recommendations to design future savings mobilization projects. Effective design and implementation are contingent on preliminary analysis of local conditions (size of financial market, existing infrastructure, level of economic development, and so on) and a host of culture- and country-specific factors. For example, whereas the projects in Dominican Republic and Bangladesh emphasized policy reform to strengthen existing institutions, the project in Niger needed to start with a pilot phase to identify an intervention strategy. Rural savings mobilization--at least on a formal basis--might not be immediately feasible in many rural regions that have not achieved increases in rural income or where there is a strong local preference for accumulating wealth in tangible form--animals, gold, and so on--rather than through savings accounts. In short, there is no prototype model that could be applied mechanically to all situations across all countries.

Nevertheless, general observations on the process of developing viable rural financial institutions underscore the points made in Sections 2.1 and 2.3 on the following issues.

Policy Dialogue. A stable and supportive policy environment is crucial, and sustained policy dialogue with the host country government to resolve financial issues (discussed in Section 2.2) might be necessary.

Technical Assistance. Appropriate support should be sustained over the life of the project and is especially crucial in the initial years. For example, the Dominican Republic project required a startup period of nearly 2 years to reorganize and train staff. The project relies heavily on a full-time technical adviser and regular short-term support from the Ohio State University team to develop an information system and promotional strategies to encourage savings.

The technical assistance component should include financial

analysts to provide the technical guidance on issues related to interest rates, transaction costs, design of loan and savings portfolios, protection against bad debt and inflation, and savings mobilization. They should at least be familiar with the new perspective on rural finance (i.e., the Ohio State University or Shaw-McKinnon school of thought). (Many mainstream economists, agricultural economists, and credit specialists do not have the necessary training and skills.) An information specialist might also be necessary to assist the credit specialist in designing an appropriate, low-cost information system for monitoring deposit and loan accounts and evaluating institutional performance.

Training. Training involves an ongoing effort to educate not only selected project staff at U.S. universities but also key policy decision-makers in host country governments and banking systems. In the Dominican Republic, this was accom- plished through numerous public seminars and by involving local economists in key aspects of the program.

3.1.4 Unresolved Issues

Several issues have emerged that remain unresolved, including portfolio management and performance evaluation.

Portfolio Management. A double portfolio (i.e., loan and savings) complicates financial management. On the one hand, savings have to be continually mobilized and monitored. On the other hand, the mobilized resources have to be quickly turned around as loans that also have to be monitored. Quick decisions have to be made concerning the allocation of mobilized resources (how much to lend and under what terms) and liquidity management (how much to set aside as reserves for withdrawals). Appropriate incentives have to be used to encourage clients to save more and repay promptly.

Efficient techniques and skilled personnel are crucial to effective portfolio management. The Dominican Republic project demonstrates that a long gestation period might be necessary to develop the techniques and train the staff. It also demonstrates that a well-designed information system and the use of microcomputers can facilitate portfolio management and reduce costs substantially. However, other strategies have yet to be developed to cope with the other more complex problems. Other financial institutions may not have the resources to take the necessary steps.

In acknowledging this problem, Claudio Gonzalez-Vega, Ohio State University research team member, suggests that donor support may be justified (on grounds of social benefits) to defray initial startup costs associated with management reorganization, training, and experiments to develop appropriate financial technologies (interview, Gonzalez-Vega 1986; and Gonzalez-Vega and Poyo 1985).

Evaluation of Performance. The Ohio State University team has identified a set of criteria to evaluate the performance of financial institutions. These criteria cover financial viability, management efficiency, quality of services, and coverage of clientele (see Section 2.4). The data to build these indicators can be extracted from records of the financial institutions, and simple descriptive statistics could be compiled.

The proposed methodology will not provide information on the use of the loans or source of savings mobilized. From the perspective of the Ohio State University team (and other economists who recognize the methodological problems involved in measuring loan usage and impact), such information is irrelevant. The primary purpose and goal of rural savings mobilization projects is to provide financial services efficiently to meet all types of credit needs of rural residents. Therefore, one does not need to know how a borrower used a loan as long as it met a particular credit need and was repaid promptly. The performance of the financial institution should, therefore, be judged on the basis of how well it serves rural clientele, including particular target groups.

3.2 Equity Investment: The Honduran Experiment

The recently approved 7-year Small Farmer Livestock Improvement project will test the feasibility of establishing a private company to share risks with small farmers in agricultural investment. A.I.D. will provide a US$l0 million loan and a US$3 million grant to help finance an in-kind lending program, technical services, and training. The Honduran Government will contribute US$1 million and the Honduran private sector US$3.5 million. The purpose of the project is to provide small livestock farmers with access to modern technology and capital by providing improved livestock to improve the quality of their herds and increase production. The private company will manage the joint venture program and will provide technical support and training to farmers. This section outlines the rationale of the project and key features of the credit program.

3.2.1 Project Rationale

Formal credit is extremely scarce in the Honduran agriculture sector, and loans for long-term agricultural investment by small farmers are virtually nonexistent. Therefore, small farmers who cultivate crops or raise livestock that require long gestation periods before returns are achieved have the least access to formal credit. In general, only 3 percent of farmers have access to formal credit and only 20 percent have ever received loans. The objective of the project is to assist small livestock farmers who have the potential, but lack the means, to increase their productivity and expand production.

The Honduran banking system is highly urban-biased, and evidence indicates that rural savings flow to urban banks. The nature of the banking system makes it extremely difficult to increase the flow of resources to farmers through financial policy reform and expansion of existing financial institutions (i.e., to adopt A.I.D.'s current policy on support for credit projects).

In a cable to A.I.D./Washington titled "The Credit Dilemma," USAID/Honduras described the dilemma it faced in its initial attempt to follow A.I.D. policy (USAID/Honduras 1985). In l982, the Mission successfully negotiated with the Honduran Government to standardize the rediscount rates of the Central Bank and to eliminate subsidized interest rates within the Government-owned agricultural development bank. However, the Government refused to remove the ceiling on interest rates. Consequently, A.I.D. decided not to proceed with a proposed US$l5 million agricultural credit project.

USAID/Honduras argued that decontrol of interest rates would be ignored by the major private banks in the country. A Mission-funded study and observations by USAID/Honduras staff indicated that, in practice, the interest rates charged by the private banks were in fact lower than the official maximum allowed! USAID/Honduras explained the situation as follows:

-- The Honduran private banking system is dominated by the major investors of l5 private urban banks. The investors use loans from these banks to finance their other urban businesses. These investors had reportedly pressured the Government not to remove the interest rate ceiling. Moreover, given their reliance on cheap loans to diversify their investments, it is unlikely that they would voluntarily allow interest rates to rise to market levels or allow the banks to expand their operations to less profitable and riskier rural areas.

-- The l5 banks are also competing for the same pool of financial resources. Decontrol of interest rates might result in an interest rate war that could destablize the banking system as major depositors shifted their withdrawals among competitors.

-- The higher risks of agricultural lending are compounded by a rampant fear among bankers and depositors that the guerilla warfare in El Salvador and Nicaragua might spread to rural Honduras. Therefore, the banks would be unlikely to expand their rural operations in res- ponse to high interest rates alone. Very secure Government loan guarantees could be offered as an additional incentive, but USAID/Honduras is skeptical of the effectiveness of such programs.

To resolve its dilemma, USAID/Honduras considered an "equity investment" strategy on the grounds that it is a viable

alternative for the Honduran situation. The Mission described the concept as follows:

> Equity funds could be allocated to highly targeted private sector activities oriented to restructure the productive base of the backward Honduran economy. These investments would be allocated based on future project productivity rather than on past accumulation of urban wealth. This equity approach becomes particularly useful for investment with a long-term gestation period (e.g., cocoa, cashews, cold rooms). Profit sharing, based on equity participation, rather than cost enhancement through interest payments (which have a high built-in spread to cover security risks) may be the only way to reach our target popu- lation (USAID/Honduras, 1985).

3.2.2 Features of the Equity Investment Program

Project activities will be managed by the Fondo Ganadero, a private company established with a combination of public and private funds. There are three categories of shareholders in the company: government, livestock producers, and private sector investors. The combined government and private sector shares will not be allowed to exceed 45 percent. The shares of the livestock producers are nontransferable and will yield annual dividends.

The Fondo Ganadero will generate income through the following:

- Sale of milk, beef, and breeding animals
- Service charges for the technical services that it provides to producers
- Sale of livestock inputs (e.g., mineral salts) that it produces and sells to the general public

The project will address the credit constraint of participating livestock producers through in-kind animal lending and farm infrastructure credit.

In-Kind Animal Lending. Joint ventures will be established for four different types of operation, corresponding to the relative importance of the production of milk, beef, or breeding animals to the activities to be undertaken by each prospective enterprise. The Fondo provides the cattle, technical assistance, and veterinary services. The farmer offers land and labor to manage the herd and pays for veterinary services. The Fondo Ganadero retains ownership of the animals and their offspring. The farmer and the Fondo split profits on the annual increase in the value of the herd: 60 percent to the borrower and 40 percent to the Fondo. The value of the milk is split 7 to 3 between the

farmer and the Fondo. Annually renewed contracts govern the business relationship between the producers and the Fondo. Producers who violate the contract will be subject to a range of punitive measures according to the severity of the offense. Producers suspected of theft will be dropped from the program.

Infrastructure Credit. A small fund will be available for individuals to improve the infrastructure on their farms. The maximum amount per loan is US$5,000. Repayments will be made through deductions from the amount borrowers would earn by managing the Fondo's herd.

3.2.3 Evaluation Plan

The following criteria will be used to evaluate the performance of Fondo Ganadero:

- -- As a private company, its ability to manage the enterprise on a profitable basis
- -- Success in transferring technology to producers
- -- Benefits received by participating producers
- -- Contribution to increased livestock production and exports

APPENDIX A

A.I.D. POLICY ON CREDIT PROGRAMS--EXCERPTS FROM POLICY PAPERS

The following excerpts from recent A.I.D. Policy Papers state the Agency's current position on support for credit programs and developing country financial institutions. The 1982 Policy Paper (Excerpt 1) draws attention to macroeconomic issues and host country government policies that impede the growth of the agriculture and financial sectors. The 1985 Policy Paper (Excerpt 2) addresses issues pertaining to private sector development. A forthcoming policy statement on "Financial Market Development" will reiterate the position expressed in these two excerpts and include detailed guidance on loan terms.

Excerpt 1. Pricing, Subsidies, and Related Policies in Food and Agriculture (A.I.D. November 1982, pp. 10-12)

C. Finance

1. The Role of Financial Services

The basic role of financial institutions is to lower the transaction costs of matching savings with investments. Aside from the direct cost-savings, this increased efficiency induces an increased flow of funds from savers to borrowers. The value

of the financial transactions thus brought about is the increased productivity with which real resources are used when they are bought by borrowers of funds instead of by depositors of funds. Some of this benefit accrues to borrowers, whose rate of return on the real resources they buy with borrowed funds is higher than the rate of interest they pay on those funds. Some of the benefit accrues to depositors, whose rate of return on the real resources they would have bought would have been less than the rate of interest they receive on their deposits. The remainder of the benefit accrues to financiers themselves, from the difference between the rates of interest on loans and deposits (the "spread"), less operating costs.

Some credit projects underemphasize this role of financial institutions. Just as in some circumstances a simple, massive transfer of food into a country can reduce farmers' incentive and ability to produce food, simple massive transfers of credit by a project can reduce the incentive and ability of financial institutions to "produce" financial resources by mobilizing and aggregating the savings of individuals. This is illustrated by the example of a project that used national and local financial institutions to provide agricultural inputs and capital goods to farmers. The project's evaluation calculated that additional input use yielded a relatively high rate of return on the agricultural investments financed under the project. On this basis the evaluation concluded that the credit project was successful. Yet, the evaluation provided no evidence that the project had improved the capabilities of the financial institutions to mobilize or to allocate indigenous financial resources. On the contrary, the evaluation documented the fact that external concessional resources were in part merely substituted for indigenous funds that the institutions had previously used. Therefore, the project did little to develop the ability of the financial system to sustain agricultural investment independently of outside assistance. Indeed, from the point of view of financial development the project may have been counter-productive.

2. Financial Policy

A.I.D.'s primary purpose in the area of credit and finance should be to create and to support a system of financial institutions that effectively mobilizes and allocates private indigenous financial resources. The financial system should be encouraged to mobilize as much savings as the economy's borrowers are willing and able to pay for. Financial institutions should, therefore, be free to set interest rates for loans and deposits high enough to clear the market between borrowers and savers. De-control of interest rates would also allow a spread between deposit and lending interest rates sufficient to make financial institutions self-sustaining and to eliminate the need for subsidies.

Furthermore, de-control of interest rates would eliminate a variety of other ill effects, such as the following.

-- Reduced interest rates on loans benefit larger and

better-off borrowers in proportion to the amount they borrow. Larger borrowers also stand to gain more by defaulting. (The ultimate effect on the distribution of wealth depends not only upon who receives the loans and who defaults, but also upon who bears the costs of defaults and reduced rates of interest: e.g., savers and taxpayers.)

Since interest is generally a small portion of cash costs in agriculture, reduced interest rates on loans seldom reduce production costs enough to have a substantial impact on a farmer's decision to adopt a novel or risky technique. On the contrary, evidence shows that even small farmers are willing to borrow at substantial rates of interest to make investments in proven and profitable new techniques, provided that credit and repayment are conveniently scheduled. Since interest-rate controls tend to suppress financial intermediation and the supply of credit, such controls actually tend to reduce adoption of those new techniques that require additional credit.

-- Interest-rate controls hide the fluctuations of market-clearing interest rates and thus obscure the true scarcity of credit in the economy.

Interest-rate controls are sometimes adopted in connection with targeted credit allocation programs. Aside from the point noted above that reduced interest rates are seldom necessary to induce target groups to borrow, the control over credit allocation itself has adverse effects, such as the following.

-- Governmentally mandated loans often burden financial institutions with both increased administrative costs and reduced loan recoveries. Administrative costs of mandated loans may be higher than those of normal commercial loans when, as is often the case, a set of borrowers (e.g., small farmers) is specified with which the institution is (at least initially) ill equipped to deal. Loan recoveries may decrease for two reasons: (a) credit is pushed into riskier areas where borrowers are more often unable to repay; and (b) targeted borrowers may be less inclined to repay their loans. They may feel that the loan is essentially a govern- mental grant or that the financial institution will be unable to enforce any penalty, such as withholding credit in the future.

-- To reduce costs in the face of these problems, financial institutions frequently have to cut back their levels of service, especially to smaller borrowers who are more expensive to deal with per dollar lent. As a result, smaller borrowers find that transaction costs such as travel, time spent waiting, and fees, rise to offset much or all of the expected savings from low

interest rates.

-- As the combined result of low deposits, excess demand for cheap loans with the potential for default, and increased administrative costs, financial institutions frequently become inclined to ration credit according to personal political influence and administrative convenience, rather than according to the borrower's productivity or need. Small farmers and other small businesses are likely to be discriminated against in the competition for loans under these circumstances, even though lending to them is mandated.

A.I.D. Missions therefore should support elimination of controls on interest rates, so that rates will be set at market-clearing levels through financial intermediation, rather than at arbitrary levels by governmental controls. Both loans to final borrowers and the funds provided by host governments to financial institutions for on-lending under A.I.D.-supported projects should bear rates of interest that are comparable to market-clearing rates of interest for non-concessional sources of funds. Some of the interest yield to the government under such programs could be set aside for technical assistance to the financial institutions or to the sub-borrowers for facilitating the credit transactions. (The same result could be achieved by requiring the financial institutions themselves to set aside from the market interest payment, all of which would otherwise go to the government, a portion reserved for specified purposes of institutional development or services to sub-borrowers. However, the interest payment to the government should not be reduced simply as an unbudgeted subsidy to the financial institution.) Otherwise, technical improvements to financial institutions can be funded by grants or loans that are budgeted separately from the funds made available for on-lending. This latter method may be preferred if it is desired that the institution-building activities should proceed before the on-lending activities can generate revenues.

Missions should also endeavor to assist financial institutions by finding innovative, cost-effective methods by which they can eventually serve target groups on a self-sustaining basis. Alternative pilot approaches may be supported through training, technical assistance, and modest financial assistance. Such efforts should examine a range of policies and characteristics of credit programs and practices that impact upon target groups such as small farmers (e.g., traditional collateral requirements).

Where it is not possible to persuade a government to eliminate interest rate controls or credit rationing in one step, Missions may provide support to or through financial institutions on the basis of significant measures being undertaken by the government to reduce controls where they adversely affect the mobilization or allocation of credit.

However, the importance of interest rates should not be

overlooked even in the short to medium term. A credit fund that prices its loans only five percentage points below the rate of inflation and that sustains only a nine percent default rate on principal will still shrink to one-half its initial purchasing power by the end of a five-year project (if the whole fund is continuously loaned out).

IV. Implementation

A.I.D.'s policy regarding pricing and distribution policies related to food and agriculture has implications for two aspects of A.I.D.'s programs:

- -- Analysis and formulation of recommended economy-wide policies for consideration by host governments; and

- -- Pricing and distribution components of A.I.D.-supported projects.

Two projects coordinated by the Science and Technology Bureau (S&T) will facilitate Missions' access to technical assistance in analysis and design of policy-related programs. An Agricultural Policy Analysis project is being designed both to assist Missions in policy analysis and to assist the development of better policy-making institutions in host governments.

The Rural Savings for Capital Mobilization project, designed by S&T's Rural Institutions Division (S&T/MD/RI), will assist Missions in establishing, testing, and implementing improved approaches to rural savings and credit, as well as in performing, and in strengthening the capacity to perform, analysis of interest-rate and credit-allocation policies, both in A.I.D. Missions and in host governments.

In addition to support through these projects, a forthcoming A.I.D. Policy Paper on "Approaches to the Policy Dialogue" will provide general advice and guidance to Missions on the conduct of discussions with host governments regarding economic policies.

In the area of pricing and distributional aspects of A.I.D.-supported projects, the present paper contains general guidance as to the goals that Missions should pursue. Implementation may require some Missions to increase their access to expertise in analysis of economic policies. Missions may wish to consider increasing the number of their personnel positions in such designations as "Program Economist" and "Agricultural Economist." A.I.D. has recently emphasized recruitment of economists and agricultural economists for its Foreign Service, as well as under Joint Career Corps appointments, which should allow more Missions to fill such positions with the appropriate skills.

Project design in the areas of concern of the present paper will also be assisted by the forthcoming evaluations of projects in the Agricultural Services Sector, to be conducted by A.I.D.'s

Evaluations Office. This series of evaluations will investigate the effectiveness and sustainability of agricultural development programs in the provision of inputs, equipment, and credit, and improving marketing channels for crops.

Excerpt 2. Private Enterprise Development
(A.I.D., March 1985, 13-14, Revised).

A.I.D.'s provision of financial capital to an developing country private enterprise will be subject to the following conditions:

-- When its purpose is to provide financial capital to a financial institution so that it can increase its current on-lending to a specific A.I.D. target group: In this case A.I.D.'s resources should be channeled only to development activities which are (1) consistent with A.I.D.'s country development strategy and (2) unable to attract the full amount of required financial capital from commercial sources. A.I.D. is willing to assume the risks associated with a country's political or economic situation, which may be impairing institutional access to commercial credit.

The on-lending of the financial institution to the A.I.D. target group should be at developing country market determined terms (interest and repayment period). If interest rates or repayment periods are artificially set by the government, the rates agreed to under A.I.D. projects should be part of a planned effort to achieve market terms in the developing country's capital market. As a minimum, it should be at positive rates to prevent decapitalization and economic misallocation of resources.

In situations in which foreign exchange risks make it inappropriate for private borrowers to assume a dollar debt, A.I.D.'s financing may be passed through a host country's government entity (e.g., central bank); the discount rate charged to the financial institution by the government entity should reflect the real cost of capital within the developing country.

A.I.D. funds provided to financial institutions should avoid introducing government ministries or parastatals into the on-lending approval process where such involvement does not now exist. Furthermore, such projects should seek to extract government ministries and parastatals from the process if they are now so involved.

-- When its purpose is to initiate an entirely new venture or activity in the developing country's private sector to reach a target group previously not served. In this case, concessionality may be warranted to finance the extraordinary start-up costs associated with introducing the new venture or activity. (Extraordinary costs

are costs which would not be incurred by subsequent investors who enter the market on the basis of the success of the initial enterprise.) In this case, the concessionality may be linked to project components such as advisory services and training. Concessional- ity may also be warranted to finance special costs arising from the newness of the venture or the require- ment of direct benefit to a specific A.I.D. target group. These special costs could include the need to hedge certain risks and provide for normal profit.

In developing such projects, Missions are encouraged to consider alternative methods of providing concessional- ity in order to avoid distorting sound business manage- ment practices which may follow from the offer of up-front concessionality as a hedge against losses.

APPENDIX B

WEAK LENDING INSTITUTIONS

1. INTRODUCTION

Many agricultural banks and other public institutions that specialize in providing loans at below-market interest rates to farmers are financially weak. They have limited resources to support their lending operations and absorb substantial operating losses. Many cannot survive without large government subsidies to help cover their lending costs and losses because of bad debt and inflation. The weak financial position of these institutions is largely the result of two factors:

-- Government policies do not allow them to charge interest rates high enough to cover all lending costs.

-- Their specialized function (i.e., lending public funds) forces them to rely exclusively on the supply of govern- ment and donor funds to finance their operations. Moreover, fluctuations and discontinuities in govern- ment and donor funds for credit programs do not allow the institutions to adopt long-term plans to expand and diversify their operations.

2. LENDING POLICIES THAT FAVOR BETTER-OFF FARMERS

Because of their financial limitations, most specialized credit institutions minimize loan risks through the following measures:

-- Credit rationing

- Extending loans only to farmers who have the re- quired collateral (e.g., clear land titles to farms

of a specific size) and characteristics (owner-operators)

- Minimizing administrative costs by restricting the number of borrowers and increasing the size of individual loans

-- Elaborate screening procedures to verify the detailed information required of loan applicants

Credit rationing and lengthy screening procedures discriminate against small farmers. Many are unable to meet the collateral requirements or to afford the expense and time required to apply and wait for loans. Invariably, successful loan applicants tend to be better-off farmers with clear land titles, viable farms, and personal savings to meet the necessary expenses. Moreover, having qualified for the initial loan, many better-off farmers automatically qualify for second loans. Consequently, as more loans are reserved for the favored minority, the amount available for new borrowers decreases.

3. HIGH DEFAULT AND DELINQUENCY

It is difficult to ascertain actual rates of default and delinquency of specialized agricultural lending institutions. For political reasons, directors of public agricultural credit institutions tend to downplay the problem of default and delinquency. The emphasis on lending to targeted groups has also resulted in the concentration of staffing resources on lending operations. Consequently, monitoring repayment and recovering loans are of low priority.

However, evidence suggests that the financial viability of many agricultural lending institutions is significantly undermined by progressive capital losses through loan delinquency and default. Several case studies demonstrate that institutions specializing in targeted agricultural lending have incurred annual arrearage rates ranging from 30 to 50 percent, a level that would seriously jeopardize the financial position of most commercial lenders.

Several factors account for the high delinquency and default rates. First, because of weather, crop disease, or extreme price fluctuations in commodity markets, farmers frequently suffer major losses and are unable to meet their debt obliga- tions. Therefore, specialized agricultural lenders are more vulnerable than other financial institutions to capital loss due to delinquency or default.

Other factors associated with socioeconomic characteristics of farm families increase the likelihood of delinquency and default. These include the following:

-- Failure of technical package. Many farmers are unable

to repay loans when the expected profits from investing in the project-supported technology do not materialize (see Section 2.1 of this report). Farmers who have minimal assets or alternative employment are especially dependent on the performance of the technical package in order to repay their debt. Therefore, when a technical package fails, these farmers are least likely to meet their debt obligations.

-- Diversion of cash reserves. Many farm families have few cash reserves to meet emergency needs and occasion- al expensive social obligations. Therefore, cash intended for loan repayment is often diverted to more immediate needs, for example, medical expenses or expenses related to weddings, births, and funerals.

Case studies indicate that many borrowers who are delinquent or in default--including many better-off farmers who have borrowed large loans--are simply unwilling to repay. Two factors account for the behavior of these borrowers:

-- Low interest-rate loans. Many farmers view cheap loans as government rewards for their political support; therefore, they do not feel obliged to repay promptly or at all.

-- Image of lending institution. Many farmers regard the lending institution as only a temporary means to expedite the lending of donor and government funds. They expect such institutions to disappear with each turnover in administration. By stalling repayment, the farmers buy time, hoping to outlast the lending institution.

4. POOR LOAN SUPERVISION

Many lending institutions are ill-equipped to monitor and collect loans. This inadequacy reflects the following:

-- Shortcomings in management capability and staff

-- Heavy political and donor pressure to push out a huge volume of loans as soon as a credit program is launched

Consequently, many loan applications are approved without much consideration of their merits.

5. SPREAD EFFECTS OF HIGH LOAN DEFAULT AND DELINQUENCY RATES

High loan default and delinquency rates often result in disastrous consequences for many lending institutions. Persistent recovery problems result in a steady decrease in funds for

relending. Additional costs are incurred in tracking delinquent loans and those in default. Other borrowers default on their loans when they realize that many have defaulted. As the situation worsens, government interference to protect the interests of farmers in important constituencies further undermines staff morale and the institutions' ability or willingness to recover loans. Increased dependence on government subsidies to defray losses due to bad debt results, thus further weakening the lending institutions' financial position.

APPENDIX C

GROUP LENDING AND OTHER INNOVATIONS

1. GROUP LENDING PROGRAMS

Many observers believe that the rate of failure and high transaction costs associated with rural credit programs can be reduced with group lending strategies. Examples are described below. In general, the results have been mixed, and the long-term financial viability and sustainability of the programs are questionable.

Group lending programs enable groups of farmers to receive loans on a joint basis. Members of the group of borrowers assume joint responsibility for loan monitoring and repayment. This arrangement benefits many small farmers who otherwise would not qualify for individual loans. These programs also reduce the costs of loan administration and borrowing.

1.1 The Lilongwe Land Development Project in Malawi

The World Bank-funded Lilongwe Land Development project in Malawi provides the best example of such programs.1 The credit component of the project provides short-term loans for seeds and fertilizer. The main features of the program include the following.

-- Joint loans at l0-percent interest rate are available to groups of l0-30 borrowers. Group members are from the same village or extended family.

-- Each group has an honorary chairman, treasurer, and secretary responsible for securing loans and record-keeping.

-- Repayment is based on a "joint and several liability" principle. Members pay l0 percent of their individual credit amount to a "security fund" that is kept in trust by the group for all members. If an individual defaults, the shortfall is made up by drawing from the

1This section is based on Schaefer-Kehnert (1980), Von Stockhausen (1980), Von Pischke and Rouse (1983), and Adams and Vogel (1985).

security fund. Habitual defaulters can be evicted by the group. The deposit is refunded with interest after full repayment of the loan.

-- Project staff provide training in credit disbursement, record-keeping, and repayment procedures.

1.2 Performance

Over a period of 7 years, the project served l,200 credit groups, covering 28,400 farmers. Repayment rates averaged over 99 percent (Von Pischke and Rouse 1983).2 Factors contributing to the success of the program include the following:

-- A relatively equitable distribution of land ownership

-- Stable economic and political conditions

-- Phasing of agricultural development activities (Availability of extension and other agricultural services was a precondition to expansion of the credit program.)

-- Keeping the volume of lending and loan amounts low to prevent over-stretching administrative resources and farmers' ability to repay

-- A 5-percent interest discount on group loans (individual loans are charged a l5-percent interest rate)

-- Compatibility with local cultural patterns

Against the achievements, several unresolved issues must be balanced, which are likely to undermine the sustainability of the program:

-- Although reduced, administrative costs remain high, at 20-29 percent of total loan volume.

-- The project continues to rely on a substantial annual subsidy to offset the low interest revenue.

2This article also describes five other programs: Caisse Nationale de Credit Agricole, Morocco; Cooperative Savings Scheme, Kenya; Rural Savings Clubs, Zimbabwe and the Cameroon Cooperative Credit Union League. The Cameroon Cooperative Credit Union League is discussed in Section 2 of this appendix.

-- Membership of borrower groups changes with each crop season, which works against efforts to encourage the groups to develop into self-financing credit organizations.

Similar group loan programs in other countries have the same problems.

2. OTHER INNOVATIONS

2.1 Credit Unions and Credit Cooperatives

Studies have shown that credit unions and cooperatives in Africa and Latin America can serve farmers on a self-sustaining basis if the following conditions are met:

-- They are well-organized.

-- They mobilize savings as well as make loans.

-- Policy and market environments favor the growth of agriculture and financial markets.

In short, the factors that account for successful credit programs also determine the self-sustainability of credit cooperatives or unions.

With minimal technical assistance from the American Credit Union National Association (CUNA) or the Cooperative League of USA (CLUSA), several developing country credit union or cooperative organizations have developed innovative credit programs for small farmers. A project in Cameroon provides an example of this approach.

2.1.1 Cameroon Cooperative Credit Union League

The Cameroon Cooperative Credit Union League successfully implemented a pilot program to encourage its rural branches to generate local savings to sustain a special small farm credit program. The project design was based on a model developed by CUNA. It had the following features:

-- Training for local credit union managers

-- Agricultural training and assistance for farmer borrowers

-- Extending loans to farmers at l2-percent interest rate, in amounts up to five times their savings with their local credit union

-- Farmer participation in credit union planning and

technical assistance activities

-- Loans to participating local credit unions to help pay for two full-time managers to implement the program

-- A loan capitalization requirement whereby farmer borrowers agree to save an amount equal to l0 percent of the loan received, in addition to their other deposits with the credit union

2.1.2 Performance

Case studies of two participating local credit unions demonstrated that deposits of farmer borrowers grew two or three times faster than those of other depositors. Delinquency rates averaged less than 0.5 percent. Local credit union management capability was greatly improved with the technical assistance and loans from the project. However, although both credit unions reported profits, their increased lending activities increased administrative expenses substantially. Their continued growth, therefore, depends on developing strategies to improve administrative efficiency and on raising interest rates for loans. Recent measures undertaken to achieve this include raising the Cooperative Credit Union League's compensating balance requirements, which in effect, increased the nominal interest rate from 12 percent to l7.1 percent.

2.2 Risk-Sharing: Loan Guarantees or Crop Insurance

Loan guarantees are government insurance programs to encourage agricultural investment by underwriting the risks taken by farmers in growing a particular crop, or to encourage agricultural lending by compensating banks for default losses. For example, a crop insurance program could reimburse farmers or lenders for a certain percentage of loss resulting from production decreases due to adverse weather or variability in the yield of the insured crop. To participate in the program, borrowers would pay a fee or a higher nominal interest rate on loans.

Observers warn that insurance programs can easily become another form of expensive government subsidy to promote poorly tested technical packages; to compensate for the ill effects of other government policies; or to support inefficient, government-owned agricultural development banks. Administration of crop insurance programs can further increase the overall costs of government-sponsored agricultural credit programs. Moreover, the assurance of guarantees might discourage financial institu- tions from collecting loans. These programs are also susceptible to corruption.3

The limitations of establishing public sector all-risk crop insurance programs for small farmers were well demonstrated in an

A.I.D.-funded experimental project in several countries in Latin America and the Caribbean (LAC), "LAC Credit Crop Insurance Systems" (Grant A.I.D./LAC/IGR-l297). Major problems included those discussed in the following paragraphs.4

1. High costs. The project demonstrated that the costs that would have to be passed on to the insured to make the insurance programs self-sustaining would be too high to attract the intended beneficiaries. A conservative estimate indicated that insurance charges (excluding nominal interest rates on loans) to borrowers would total l5-percent, comprising a 10-percent risk premium, a 3-percent administrative cost, and a 2-percent reinsurance or reserve. In reality, the likely costs would be approximately 20 percent. The cost per policy is inversely proportional to the size of farms covered.

2. Management inefficiency: conflict of interests. The project also identified issues likely to plague programs managed by the public sector. The project demonstrated that the financial management requirements of insurance programs could not be adequately fulfilled by government bureaucracies even though, as in this case, they were semiautonomous government agencies. A central problem is that as government bureaucracies, public sector institutions are highly susceptible to political interference that can conflict with the technical aspects of insurance program management.

3For an extensive discussion of related policy issues and crop insurance programs in developed and developing countries, see Hazell et al. (1986).

4The project was implemented by the Inter-American Institute for Cooperation on Agriculture (IILCA) in Ecuador, Panama, and Bolivia. The findings cited here are contained in the final project report (Inter-American Institute for Cooperation on Agriculture 1984).

3. Data constraints. Adequate data for determining risks and insurance rates for smallholder agriculture in Latin America do not exist and are costly to collect and analyze. The project demonstrated that although methods for acquiring the necessary data are known, the costs, skills, and time needed to establish a data base are likely to exceed the capacity of existing agricultural insurers in Latin America--individually or even combined. Similar data constraint problems have plagued agricultural insurers in other third world regions.

The A.I.D.-sponsored experiment strongly suggests that the negative consequences of direct government involvement in the agricultural insurance industry will likely outweigh the positive gains. Nevertheless, the experiment did not rule out the possibility of government intervention or donor support altogether. On the contrary, the project underscored the importance of a limited, but more effective government initiative through poli-

cies that would encourage the expansion of existing private insurers into rural areas. The measures that should be taken are no different from those required to establish a viable rural financial system.

APPENDIX D

INTEREST RATES AND FARMER ADOPTION OF IMPROVED TECHNOLOGY

There is strong evidence to refute the popular view that subsidized interest rates are a significant incentive for small farmers to invest in improved agricultural technology. Evaluation reports indicate the following findings:

-- Demonstration plots and a proven technical package backed by adequate support services were more effective in persuading farmers than the prospect of a cheap loan.

-- Farmers spontaneously adopted technical packages without benefit of government or donor loans when they were confident of a profitable return on their investment.

-- Five A.I.D.-sponsored projects (in the Dominican Republic, Honduras, Indonesia, Peru, and Bangladesh) successfully demonstrated that small farmers were willing to borrow at nonsubsidized interest rates.

-- Decisions to borrow were based on a host of factors as important as, if not more important than, interest rates alone. These included convenient access to the lending institution, low up-front application costs, appropriate collateral and repayment conditions, and the prospect of subsequent loans. (See Sections 2.3.3 and 2.3.6 in the main report.)

ANNOTATED BIBLIOGRAPHY

AGENCY FOR INTERNATIONAL DEVELOPMENT (A.I.D.) PUBLICATIONS

1973 A.I.D. Spring Review of Small Farmer Credit Programs

The findings and analytical papers presented at the Spring Review were based primarily on 60 case studies of A.I.D.-sponsored credit programs in 29 countries. A book summarizing the major findings was subsequently published (see Donald 1976 below). The individual papers, compiled in a 20-volume report (see titles below) are available in the A.I.D. Library (for reference only). Copies may be purchased from the following address:

User Services

A.I.D. Document and Information Handling Facility,
7222 47th Street, Suite 100
Chevy Chase, Maryland 20815

Summary volume

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Vol. III, Small Farmer Credit in South America (PB224027, $8.50).

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Vol. XIII, Small Farmer Credit in the Philippines (PB224037, $5.25).

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11. "Cooperative Credit in Perspective: Case Study, Pakistan." Mahmoud Ali Khan, Dilawar Ali Khan; University of Agriculture, Lyallpur. 47 pp.

Vol. XVII, Small Farmer Credit--Country Surveys (PB224041, $7.50).

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Latin America Africa Asia

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Morocco		Thailand
Kenya		Philippines
Ethiopia		Pakistan

Vol. XVIII, Small Farmer Credit--History of A.I.D. Programs in Agricultural Credit (PB224042, $7.00).

This volume reproduces the official evaluation study of A.I.D.'s agricultural credit programs through 1972. The study was carried out by Edward B. Rice of A.I.D. (Reprint)

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4. "Conditions for Success of Public Credit Programs for Small Farmers." Millard F. Long; Harvard Development Advisory Service. 20 pp.

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7. "The Credit Connection: Cultural and Social Factors Affecting Small Farmer Participation in Credit Programs." Cynthia Gillette, Norman Uphoff; Cornell University. 46 pp.

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9. "Institutional Issues Associated With Small Credit in Developing Countries." John R. Brake; Michigan State University. 16 pp.

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12. "Group Credit for Small Farmers." Thomas F. Carroll; Inter-American Development Bank. 20 pp.

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A.I.D. Document and Information Handling Facility
7222 47th Street, Suite 100
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